

**Notice of Allowability**

Application No.

10/516,908

Applicant(s)

WUN, TZE CHEIN

Examiner

Maryam Monshipouri

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/13/2007.
2. ☒ The allowed claim(s) is/are 1, 3, 4 and 6.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date filed 2/05 & 6/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 1/08.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Me. Elizabeth Koral, on 1/31/2008.

#### **Examiner's Amendment to the Claims**

Cancel claims 2, 5, 7-23.

In claim 1, line 1, after "comprising", delete "a fusion of annexin V (ANV) (SEQ ID NO:10) and Kunitz protease inhibitor (KPI)", and substitute therefor --- a protein sequence selected from the group consisting of TAP-ANV (SEQ ID NO:1), ANV-6L15 (SEQ ID NO:2), ANV-K<sub>APP</sub> (SEQ ID NO:3), and ANV-KK<sub>TFP1</sub> (SEQ ID NO:4) and conservatively substituted variants thereof exhibiting Kunitz protease inhibitor (KPI) activity ---.

In claim 3, line 2, after "comprising", delete "a fusion of annexin V (ANV) (SEQ ID NO:10) and Kunitz protease inhibitor (KPI)", and substitute therefor --- a protein sequence selected from the group consisting of TAP-ANV (SEQ ID NO:1), ANV-6L15 (SEQ ID NO:2), ANV-K<sub>APP</sub> (SEQ ID NO:3), and ANV-KK<sub>TFP1</sub> (SEQ ID NO:4) and conservatively substituted variants thereof exhibiting Kunitz protease inhibitor (KPI) activity ---.

In claim 6, line3, after "comprising", delete "a fusion of annexin V (ANV) (SEQ ID NO:10) and Kunitz protease inhibitor (KPI)", and substitute therefor --- a protein sequence selected from the group consisting of TAP-ANV (SEQ ID NO:1), ANV-6L15 (SEQ ID NO:2), ANV-K<sub>APP</sub> (SEQ ID NO:3), and ANV-KK<sub>TFP1</sub> (SEQ ID NO:4) and conservatively substituted variants thereof exhibiting Kunitz protease inhibitor (KPI) activity ---.

**Examiner's Amendments to the Specification**

In page 1, line 2, below "**Novel Recombinant Anticoagulant Proteins**", after "This application", insert --- is a national stage entry of PCT/US03/17442 filed 6/4/2003, which ---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 1, 3-4 and 6 are directed to recombinant anticoagulant proteins comprising specific amino acid sequences comprised of annexin V variants or fragments fused to a Kunitz protease inhibitor (KPI) or fragments thereof and a method of inhibiting blood coagulation utilizing said anticoagulant proteins. Claimed amino acid sequences are free of prior art. Further the prior art does not teach or suggest preparing such specifically claimed sequences. Hence, said sequences are also non-obvious. Since said amino acid sequences are both novel and non-obvious, anticoagulant proteins comprising them and a method of use of said anticoagulant proteins as specifically claimed, are also novel and non-obvious.

**Claims 1, 3-4 and 6 are allowed.**

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on Tues.-Fri., from 7:00 a.m to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleene Kerr Bragdon can be reached on (571) 272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*M. Monshipouri*  
Maryam Monshipouri Ph.D.

Primary Examiner

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